art of oncology

Chopin's Rubato in Cancer Care

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Years ago, my art was different. I mastered how to read and interpret the language of music. I spent over two decades learning from mentors: Bach, Mozart, Haydn, Chopin, Beethoven, Brahms, and Rachmaninoff. I adapted to each of their styles, forcing my fingers to move in unfamiliar ways until muscle memory took over, changing the pressure by which I applied my fingers to piano keys to produce different textures of sound.

Now as an oncologist and palliative care specialist, I have come to appreciate how my musical background has inspired how I care for patients with cancer. The notes, the rhythm, the beat, the phrasing, the harmonies, the softness and loudness, the intentional silence, and the underlying musical theory and history that ground it all—these are analogous to the scientific principles I practice and uphold in medicine today.

But as in music, the art and the artistry of medicine are found in the performance.

Below is my sonata.

EXPOSITION

I was approximately seven years old when I first met Frederic Chopin. From the start, I understood Chopin's science. I listened to him. I heard what he said with his notes and heard why he chose to say it in that manner. Chopin tested me and I responded, not always with perfection, but always with sincerity, emotion, and resolve. Even so, I never really understood his art. I saw his notes on the page and relayed synaptic signals to my fingers to produce the corresponding sounds with accuracy and precision. But this was not enough.

As I was playing one of Chopin's Nocturnes, which I had practiced for months, my piano teacher stood up in the middle of her living room and raised her hand, signaling me to stop. What could I have done differently? I had perfected those notes, perfected his rhythm. I thought I had reproduced his results. She sat down on the piano bench in my place. She did not play; *she performed*. She started similarly to establish the foundation of the song. And then, she did something different—her right hand was not completely in sync with her left; she deliberately played faster, then intentionally slowed down; she stole time from certain notes and added the time back in others, temporarily changing the structure and timing of the musical phrase without losing its integrity. She shaped a new interpretation that was uniquely hers, nuanced and free, but without completely abandoning Chopin's scientific arrangement. In essence she deviated within reason. This experiment spanned a total of a few seconds, and the result was beautiful. My rendition was mechanical; hers was expressive and living. She explained to me that this was *rubato ("rōō bädō")*. In that moment, I discovered that art, or at least my interpretation of it, was an expression of individuality and a result of innovating within a theoretical framework.

With rubato, the musician discovers rhythmic subtleties to produce a novel and meaningful interpretation of a melodic phrase. And perhaps most importantly, the musician cannot be radical, lavish, or wander too far. He or she is always pulled back with an understood force to the fundamentals of musical theory and the notated language. To distort or deviate too much would be destructive. A musician must always remember and respect the scientific background upon which art is produced.

DEVELOPMENT

More recently, I have realized that rubato exists within the practice and performance of medicine. As I learned medical science and the historical evidence that guides decision-making, I marveled at how seasoned physicians knew when and the degree to which to adjust and innovate in clinical practice. For me, this became most evident in my observations and experience while caring for patients with cancer. I completed my training in both oncology and palliative medicine with Chopin's music playing in the background.

The interplay between scientific knowledge and artistic freedom in oncology is fascinating and is perhaps that which brings verve to the care that we provide. We practice clinical oncology with rigor and technique, using an algorithmic logic that is rooted in a growing field of scientific evidence. These are the notes on the page. As oncologists, we understand why we recommend standard treatment regimens because this is the science that we honor and apply. In addition, we contribute to our science and advance our discipline through research. We test and combine pharmacologic instruments to compose new and sophisticated regimens with the goal of improving the lives and outcomes for our patients, potentially reaching a larger audience.

Yet, not every clinical presentation or situation is the same. At times, we are tasked to improvise and think beyond the written notes and beyond our comfort zone, acknowledging that our understanding of what to do is limited to an extent. We often extrapolate with nuance and stretch what is known to fulfill the unique needs of each patient. And above all, in our assessment and treatment planning, we incorporate who the patient is as a person. In doing so, we fine-tune our approach and add artistic style. The final product is a performance of evidence-based notes that is deeply personal and powerful, and one that cannot be simply

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replicated. It is in the performance that we apply our clinical judgment, we personalize cancer care, and ultimately, we build a meaningful relationship with each of our patients.

I witnessed my mentors in oncology practice their art with ease. They used their experience to manage patients both within and outside of guidelines, using individualized rationale and intention. They made modifications to treatment on the basis of a patient's comorbidities, preferences, and life outside of cancer. They were experts in knowing when and when not to take treatment breaks, when and when not to consider locoregional approaches, when and when not to advocate for investigational agents, and when and when not to expand beyond the available data, all done to carefully tailor treatment and provide individualized care. They acknowledged their variations in management and never lost sight of the theory that grounded all aspects of their clinical decisions. Drugs were not offered if there was neither a molecular nor clinical rationale to do so. They made decisions with controlled instinct, yet never broke the fundamental pillars of our science. *They performed*.

In palliative medicine, the conversation is the song. As palliative care specialists, we rehearse communication techniques to create a therapeutic alliance and partner with patients facing serious illnesses. We are taught how to structure a conversation and are often reminded why language and discourse matter. We use mnemonics, validated questions, and logical transitions to effectively communicate in the clinical encounter. We cover a range of topics, from addressing symptoms to eliciting the values, goals, and preferences of patients and their loved ones. We value the science and the mechanics of our song.

But what continues to amaze me is when adjustments have to be made to this process, in spite of the guiding principles that have been so well studied. A subtle change in communication occurs, and in just seconds, the clinical encounter can be transformed.

I listened to how my mentors in palliative care performed their art. They shifted and directed the conversation to match the needs of the patient, and the flow of conversations unfolded to create new meaning and understanding for both parties involved. I observed how some patients preferred not to discuss their code status or divulge what mattered most to them on their first visit with a palliative care specialist. When this happened, my mentors paused. They remained fully present. They avoided rushing into the next notes when the timing was not right. This was the artistic rest needed in the music, to give our patients time to reflect on what was previously said and played.

It became clear to me, as we led difficult conversations, that I had to expect and encourage variation within the structure of the clinical encounter. The conversations could not be robotic or purely technical. I found art in the performance of palliative care when we led conversations freely and did so out of instinct, while always remembering the core principles of empathic communication. I discovered that the science of palliative care and communication was not neglected if questions remained unanswered, and that intentional silence during family meetings often created a powerful space that could unite everyone—patients, family members, nurses, oncologists, and palliative care specialists. My palliative care mentors taught me to be meticulous yet flexible. We stole time from certain topics only to invest time in others, tailoring discussions to meet the individual needs of each patient. Through our artistry, we listened, and our patients felt heard.

RECAPITULATION

The musical art I mastered years ago has informed the art of oncology and palliative medicine that I perform today. Chopin's rubato has changed how I listen, how I make medical decisions, and how I converse. It has helped me understand that the art of caring for a patient with cancer hinges on the regard for the science of oncology and palliative medicine, while also recognizing the value of innovation and making subtle adjustments when needed. Finding freedom within the structure of oncology and palliative medicine can be beautiful and rewarding. Displaying too much freedom, however, can be dangerous and unsettling. Like a musician, a physician must always remember and respect the scientific background upon which art is produced.

Both in music and in medicine, rubato comes with practice and experience. I am and always will be refining my art. Today, when I sit on my piano bench after a day in the clinic treating patients with cancers, I thank all of my musical and medical mentors for sharing with me their expertise and inviting me to their performances. And most of all, I thank Chopin.

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